

REMARKS

This is in response to the Office Action of September 2, 2003. This amendment is accompanied by a request for a one month extension of time and the requisite fee. Therefore, this amendment is timely filed.

Status of the Application

Claims 1-50 were initially presented. In the Office Action of September 2, 2003, the Examiner rejected claims 1-50, and objected to claims 1, 23, 29, 39-40, and 42-46. By way of this amendment, Applicants amended claims 1, 23, 29, 39, 40, 42, and 43. Accordingly, claims 1-50 remain pending.

In view of above amendments and the following remarks, reconsideration of the application is respectfully requested.

Claim Objections

The Examiner objected to claims 1, 23, 29, 39, 40, and 42-46 because of several typographical errors. In response, Applicants have amended claims 1, 23, 29, 39, 40, 42, and 43 to correct the typographical errors, and Applicants respectfully request the withdrawal of the objections to claims 1, 23, 29, 39, 40, and 42-46.

Amendment to Claim 38

Claim 38 was amended to correct a typographical error.

Rejections Under 35 U.S.C. § 103

Claims 1-4, 8, 10-13, 17, 41-44, 47-48, and 50 were rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 6,292,708 to Allen et al. (Allen) in view of U.S. Patent No. 5,576, 946 to Bender et al. (Bender). Claims 5, 14, and 49 were rejected under 35 U.S.C. §103 as being unpatentable over Allen in view of Bender and in further view of U.S. Patent No. 6,000,830 to Asano et al. (Asano). Claims 6 and 16 were rejected under 35 U.S.C.

§103 as being unpatentable over Allen in view of Bender and in further view of U.S. Patent No. 6,438,436 to Hohkibara et al. (Hohkibara). Claims 7, 9, 15, 18, 45, and 46 were rejected under 35 U.S.C. §103 as being unpatentable over Allen in view of Bender and in further view of U.S. Patent No. 5,113,350 to Sargent (Sargent). Claims 19-23 and 25-29 were rejected under 35 U.S.C. §103 as being unpatentable over Asano in view of Allen. Claims 24 and 30 were rejected under 35 U.S.C. §103 as being unpatentable over Asano in view of Allen and in further view of Hohkibara. Claims 31 and 32 were rejected under 35 U.S.C. §103 as being unpatentable over Sargent in view of Bender. Claims 33-40 were rejected under 35 U.S.C. §103 as being unpatentable over Sargent in view of Bender and in further view of Allen.

Applicants respectfully traverse the rejections.

Claim 1

Claim 1 was rejected under 35 U.S.C. §103 as being unpatentable over Allen in view of Bender. Allen and Bender, however, do not disclose, teach, or suggest all the limitations of claim 1, neither individually nor in combination. Therefore, Applicants respectfully submit that claim 1 is allowable.

Allen describes a distributed control system for a semiconductor wafer processing machine. Allen does not, however, disclose a method of creating a batch process campaign (i.e., a campaign including multiple batches to be processed). Rather, Allen appears to merely describe a control system in which a user can select recipes to be used in processing a batch of semiconductor wafers and which carries out execution of processing of semiconductor wafers. *See Allen* at col. 9, lines 9-17; Fig. 5. Thus, the control system of Allen appears to merely implement functions implemented by a typical batch executive:

The batch executive [] may be any system that defines (i.e., creates) and executes batches, such as the DeltaVTM Batch Executive provided by Fisher-Rosemount Systems, Inc., for example, that enables a user to define recipes, equipment lists, batch parameters, etc. for batch execution and carries out the execution of a batch process.

Application, p. 11, lines 9-13. Allen does describe, however, using the processing system, once configured with particular recipes and a particular processing scheme, to process multiple batches of wafers. *See Allen* at col. 12, line 64 to col. 13, line 2. But Allen does not

disclose, teach, or suggest a method of, or system for, creating a batch process campaign. At most, Allen merely suggests that its system may be used to process multiple batches. Because Allen does not disclose a method of or system for creating a batch process campaign, Allen does not disclose several elements of claims to which the Examiner applied Allen.

For example, the Office Action asserted that Allen discloses "prompting the user to enter a second input specifying campaign information to be included within the batch process campaign" as recited in claim 1 because Allen discloses "in response to an operator input, task 504 causes master control module 204 to select a plurality of processing recipes for the next wafer processing procedure to be performed by wafer processing system 100." *Office Action*, p. 4 (underlining added). But this portion of Allen merely describes selecting particular recipes to be used in a particular batch. This portion of Allen does not appear to disclose, teach, or suggest anything about campaign information to be included within a batch process campaign.

Bender describes a control system for creating, modifying, initiating, and controlling a manufacturing process in which icons on a display represent discrete process steps in the manufacturing process. Bender describes a user interface for creating and editing a recipe. *See Bender* at col. 8, lines 14-67. Bender does not, however, disclose, teach, or suggest a method of or system for creating a batch process campaign. Because Bender does not teach anything about batch campaign creation, Bender does not appear to teach anything about prompting a user to enter an input specifying campaign information to be included within a batch process campaign. Thus, Allen and Bender do not disclose, teach, or suggest the above-discussed element. For this reason alone, Applicants respectfully submit that claim 1 is allowable over Allen and Bender.

Additionally, Allen and Bender do not teach anything about creating a batch process campaign. Thus, Allen and Bender do not disclose, teach, or suggest "using the first and second inputs to create the batch process campaign", neither individually nor in combination. At least for this additional reason, Applicants respectfully submit that claim 1 is allowable over Allen and Bender.

Claim 4

Claim 4 depends from claim 1. Therefore, claim 4 is allowable at least for the reasons discussed above with respect to claim 1. In addition, claim 4 is allowable because it recites additional elements not disclosed, taught, or suggested by the applied references. For example, claim 4 recites "requesting recipe information associated with a cleanup batch."

The Office Action asserted that Allen discloses this element because Allen describes a cleaning station of a semiconductor wafer processing machine. *See Office Action* at p. 5. The cleaning station of Allen, however, is merely one stage of a process. In other words, Allen describes a cleaning step which is performed on all the batches of wafers. Such a cleaning step is not a cleanup batch, and Allen does not appear to teach anything about a cleanup batch. For at least this additional reason, Applicants respectfully submit that claim 4 is allowable over the applied references.

Claim 19

Claim 19 was rejected under 35 U.S.C. §103 as being unpatentable over Asano in view of Allen. Asano and Allen, however, do not disclose, teach, or suggest all the limitations of claim 19, neither individually nor in combination. Therefore, Applicants respectfully submit that claim 19 is allowable.

Asano does not disclose, teach, or suggest a method for executing a batch process campaign. Rather, Asano describes a system for applying recipes to semiconductor manufacturing apparatuses. The system of Asano includes a host computer connected to a plurality of apparatus controllers, and a group controller connected to the host computer and the apparatus controllers.

The Office Action asserted that Asano discloses "determining a batch execution mode associated with the batch process campaign" because Asano describes a mode selector that selects between an apparatus mode, a recipe management mode, and a host mode. *See Office Action* at p. 14. These modes of Asano, however, appear to merely relate to where recipes are stored in the system (e.g., at the host computer, the group controller, or the apparatus controllers). *See Asano* at col. 5, lines 37-40; col. 6, lines 10-12 and 44-46. These modes do not appear to be related to how a batch is executed. Thus, Asano does not disclose, teach, or suggest "determining a batch execution mode associated with the batch process campaign."

Additionally, the Office Action asserted that Asano discloses "releasing one or more batches from the plurality of batches to the batch execution function based on the batch execution mode" because Asano describes a "normal mode" window of a user interface that permits an operator to designate a procedure for processing a semiconductor wafer. *See Office Action* at p. 14. But this normal mode window of Asano does not appear to teach anything about releasing batches to a batch execution function, nor does it teach anything about releasing batches based on a batch execution mode. In fact, the normal mode window of Asano does not seem to be related at all to what in Asano the Examiner asserted corresponded to batch execution modes (i.e., the apparatus mode, the recipe management mode, and the host mode). Thus, Asano does not disclose, teach, or suggest "releasing one or more batches from the plurality of batches to the batch execution function based on the batch execution mode."

Moreover, Allen does not disclose, teach, or suggest the above-discussed elements of claim 19. Accordingly, Applicants respectfully submit that claim 19 is allowable over Asano and Allen.

Claim 31

Claim 31 was rejected under 35 U.S.C. §103 as being unpatentable over Sargent in view of Bender. Sargent and Bender, however, do not disclose, teach, or suggest all the limitations of claim 31, neither individually nor in combination. Therefore, Applicants respectfully submit that claim 31 is allowable.

Sargent does not disclose a method for editing a batch process campaign. Rather, Sargent describes a material handling system for storage, recording, and display of information for aiding an operator in filling, mixing, loading, and recording materials such as fertilizers. Sargent describes providing an operator with written information that includes a number of a load that is to be prepared and the name of the customer who is to receive the load. *See Sargent* at col. 3, lines 42-44. The operator then enters the load number via a user interface. *See id.* at col. 3, lines 45-46. In response, the user interface displays the entered load number and the name of the customer associated with the entered load number. *See id.* at col. 3, lines 46-52. Using this displayed information, the operator can verify that the

correct load number was entered. *See id.* at col. 3, lines 52-58-46. If it was not correctly entered, the operator can reenter the load number. *See id.* at col. 3, lines 58-60.

The Office Action asserted that this description in Sargent discloses "prompting the user to enter a second input via the graphical user interface specifying a change to batch information associated with the identified one or more unreleased batches." *See Office Action* at p. 18. But this description in Sargent does not teach anything about changing batch information associated with an identified unreleased batch. Rather, this description in Sargent merely describes reentering a load number if an operator determines that he or she entered the incorrect load number.

Bender was cited as disclosing a graphical user interface. Bender does not disclose, teach, or suggest "prompting the user to enter a second input via the graphical user interface specifying a change to batch information associated with the identified one or more unreleased batches."

Accordingly, Applicants respectfully submit that claim 31 is allowable over Sargent and Bender.

Claim 41

Claim 41 was rejected under 35 U.S.C. §103 as being unpatentable over Allen in view of Bender. Allen and Bender, however, do not disclose, teach, or suggest all the limitations of claim 41, neither individually nor in combination. Therefore, Applicants respectfully submit that claim 41 is allowable.

The Office Action asserted that Allen discloses "a campaign manager communicatively coupled to the batch executive that exchanges messages with the batch executive" because Allen describes a master control module that communicates with and regulates the operation of application control modules that control sub procedures of a semiconductor wafer processing procedure. *See Office Action* at p. 7. But the master control module of Allen merely appears to implement functions implemented by a typical batch executive. *See Allen* at col. 9, lines 13-17; *Application*, p. 11. Allen does not appear to disclose, teach, or suggest a campaign manager as recited in claim 41.

Similarly, Bender does not disclose, teach, or suggest a campaign manager as recited in claim 41. Accordingly, Applicants respectfully submit that claim 41 is allowable over Allen and Bender.

Other Claims

Applicants respectfully submit that independent claim 10 is allowable at least for reasons similar to those discussed above with respect to claim 1.

It is respectfully submitted that independent claim 25 is allowable at least for reasons similar to those discussed above with respect to claim 19.

Applicants respectfully submit that independent claim 36 is allowable at least for reasons similar to those discussed above with respect to claim 31.

Claims 2, 3, and 5-9 depend from claim 1. It is respectfully submitted that these claims are allowable at least for the same reasons as claim 1.

Claims 11-18 depend from claim 10. Applicants respectfully submit that these claims are allowable at least for the same reasons as claim 10. It is respectfully submitted that claim 13 is allowable for additional reasons similar to those discussed above with respect to claim 4.

Claims 20-24 depend from claim 19. It is respectfully submitted that these claims are allowable at least for the same reasons as claim 19.

Claims 26-30 depend from claim 25. Applicants respectfully submit that these claims are allowable at least for the same reasons as claim 25.

It is respectfully submitted that claims 32-35 and claims 37-40 are allowable at least for the same reasons as claims 31 and 36, respectively.

Applicants respectfully submit that claims 42-50 are allowable at least for the same reasons as claim 41.

Conclusion

In view of the foregoing, it is respectfully submitted that the above application is in condition for allowance. If there is any matter that the Examiner would like to discuss, the Examiner is invited to contact the undersigned representative at the telephone number set forth below.

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Respectfully submitted,

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